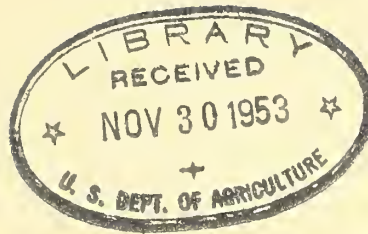


Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

Reserve
A56.7
S032

A.E. Jones

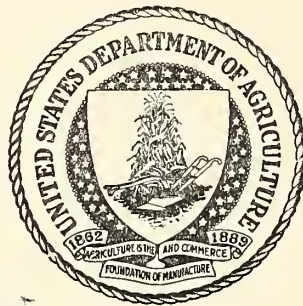


3⁰ GREATER FARM PRODUCTION
IN THE SOUTHEAST
THROUGH CONSERVATION FARMING //

AS SHOWN BY A SURVEY OF 1,829 REPRESENTATIVE
SOUTHEASTERN FARMS FOLLOWING COMPLETE
CONSERVATION PLANS DEVELOPED BY
SOIL CONSERVATION DISTRICTS

U. S. DEPARTMENT OF AGRICULTURE
2 U. S. SOIL CONSERVATION SERVICE
SOUTHEASTERN REGION
SPARTANBURG, S. C.
JANUARY 16, 1943
Sc

UNITED STATES
DEPARTMENT OF AGRICULTURE
LIBRARY



Reserve

BOOK NUMBER

A56.7

S032

FOREWORD

On the farmlands of America, a battle is being fought-- and won!

It is the fight to produce vitally needed food and other farm products for ourselves and our allies.

Here in the Southeast as elsewhere, farmers find conservation farming an indispensable weapon for winning this battle on the land. This is substantiated by a recent survey of 1,829 farms by the Soil Conservation Service in 90 farmer-organized soil conservation districts in Kentucky, Virginia, Tennessee, North Carolina, South Carolina, Georgia, Florida, Alabama, and Mississippi. Owners of these typical farms have been following complete systems of conservation farming at least two years.

The data, charts, and other information that follow bring out some of the significant benefits these farmers have experienced from better land use and conservation farming--benefits that have a direct relation to winning the war and insuring the peace.

The farms covered in the survey represent most of the farming sections found in the Southeast. Crop production on these farms before conservation farming was based on an average of

annual yields covering two or three years preceding the development of conservation plans, and likewise the average of two or three years was used in determining crop production after conservation farming. Similar before and after periods were used in reporting on livestock and poultry. By following this method, a representative picture of conservation benefits in the Southeast was obtained.

Although the survey shows distinct benefits from conservation farming, it should be recognized that the 1,829 farms covered in the survey constitute only a representative segment of the 56,746 farms embracing 9,745,918 acres in soil conservation districts that are following well rounded conservation programs.

Many other farmers, both within and outside of districts, have become acquainted with conservation measures being established by district cooperators, and have adopted one or more of these measures on their farms. They, too, are producing more food for freedom. The sphere of influence of a soil conservation district is by no means limited to its cooperators or even by its boundary lines.

Conservation farming is helping southeastern farmers to make better use of soil resources and to diversify their farming activities. More food produced with greater financial returns helps to keep them and their families better fed, better clothed, and better housed.

SOIL CONSERVATION DISTRICTS IN THE SOUTHEAST



Conservation farming has spread rapidly through the Southeast in recent years. One of the most powerful forces in this accelerated conservation movement has been the farmer-organized and farmer-controlled soil conservation districts which have been set up under appropriate

state laws. Each district has 5 resident farmer supervisors.

Each of the nine southeastern states as shown on the map has enacted a soil conservation districts law since 1937. In these states there already are 164 districts, embracing 140,151,000 acres.

Approximately half of the land area in the Southeast is in soil conservation districts. Kentucky and Tennessee were the last two states in the group to pass districts laws; consequently district organization is not as far advanced in these two states as in the others.

District supervisors may call upon federal, state, and local agencies and organizations for aid. The Soil Conservation Service, in cooperating with districts, makes surveys of farms showing the extent of erosion, soil types, slope, and present land use. After this basic information has been obtained the farmer and the planning technician work out a detailed conservation plan for the farm. The capabilities of the land as shown on the conservation map are studied carefully with a view of having each acre produce without soil wastage the crops it is best suited to produce.

The plan, when completed, usually includes the following conservation measures: water disposal, including terraces, terrace outlets, farm drainage, and roadside erosion control; improved land use on open fields, including crop rotations on better classes of cropland, establishment of appropriate perennial vegetation on steep or severely eroded land, and the development of pasture on lowland or other suitable areas; woodland management, including reforestation of certain areas, proper harvesting of fuel and other timber products, fire prevention and control, grazing control; and wildlife features such as wildlife border strips between

woodland and cultivated land, and plans for farm ponds for stock water and fish production. Through these measures food and feed production is being increased, and the economic status of the farmer improved.

Other agencies and organizations also are helping the districts. The State Extension Services assist in arranging and conducting meetings and in other educational activities. Teachers of vocational agriculture likewise have helped speed up the conservation work. The help received from the Agricultural Adjustment Agency enables farmers to change from soil-depleting to soil-conserving crops. Similarly, the programs of the Farm Credit Administration and the Farm Security Administration have helped to improve agricultural conditions in the districts.

As a contribution to the war effort, the districts are endeavoring to serve more farmers than ever before. During the winter and spring the districts with the help of the Soil Conservation Service, Extension Service, and Agricultural Adjustment Agency, are spreading the adoption of certain simple but effective conservation practices.

Simple conservation practices such as contour tillage, pasture improvement, liming, production and harvesting of seed, use of legumes in crop rotations, maintaining terraces, planting perennial legumes on steep slopes and in sharply defined waterways, and establishing temporary grazing crops, have been widely adopted. However, in view of the immense food production job ahead it is imperative that these simple practices be widely adopted. Fortunately, the ground work already laid, both within and outside of districts, will help tremendously in getting the job done.

MORE MEAT, MILK, AND EGGS

Twenty thousand more dairy and beef cattle.

Fifteen thousand more hogs.

Ninety-five thousand more chickens.

All on 1,829 farms in the Southeast.

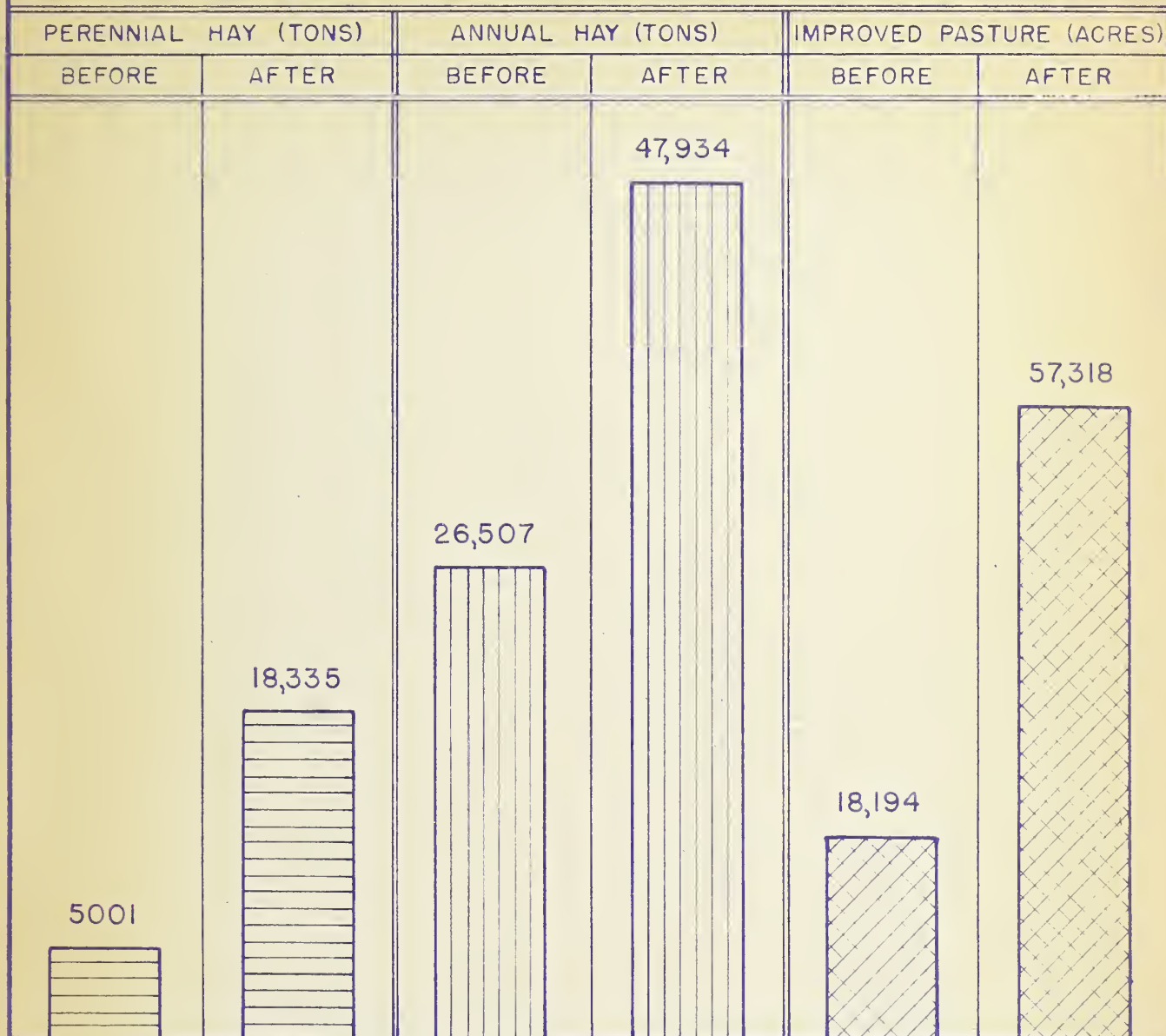
Try to visualize this in supplies of meat, milk, butter, and eggs and the picture of the importance of conservation farming to the war effort and agriculture in the Southeast begins to unfold.

Practically all of the 1,829 farmers interviewed had increased the size of their dairy and beef herds, number of hogs, and the size of their poultry flocks. In most cases increased production was well under way before Pearl Harbor.

Owners of the farms have been following well rounded conservation programs for at least two years. Most of the feed for this added livestock and poultry is being raised on the farms, thus affording a greater margin of profit than if feed were bought.

Immediately following are a number of charts that illustrate this greater production of livestock, poultry, and crops; more hay and pasture; greater diversification of farming activities, and other benefits from conservation farming in soil conservation districts.

HAY PRODUCED - IMPROVED PASTURE

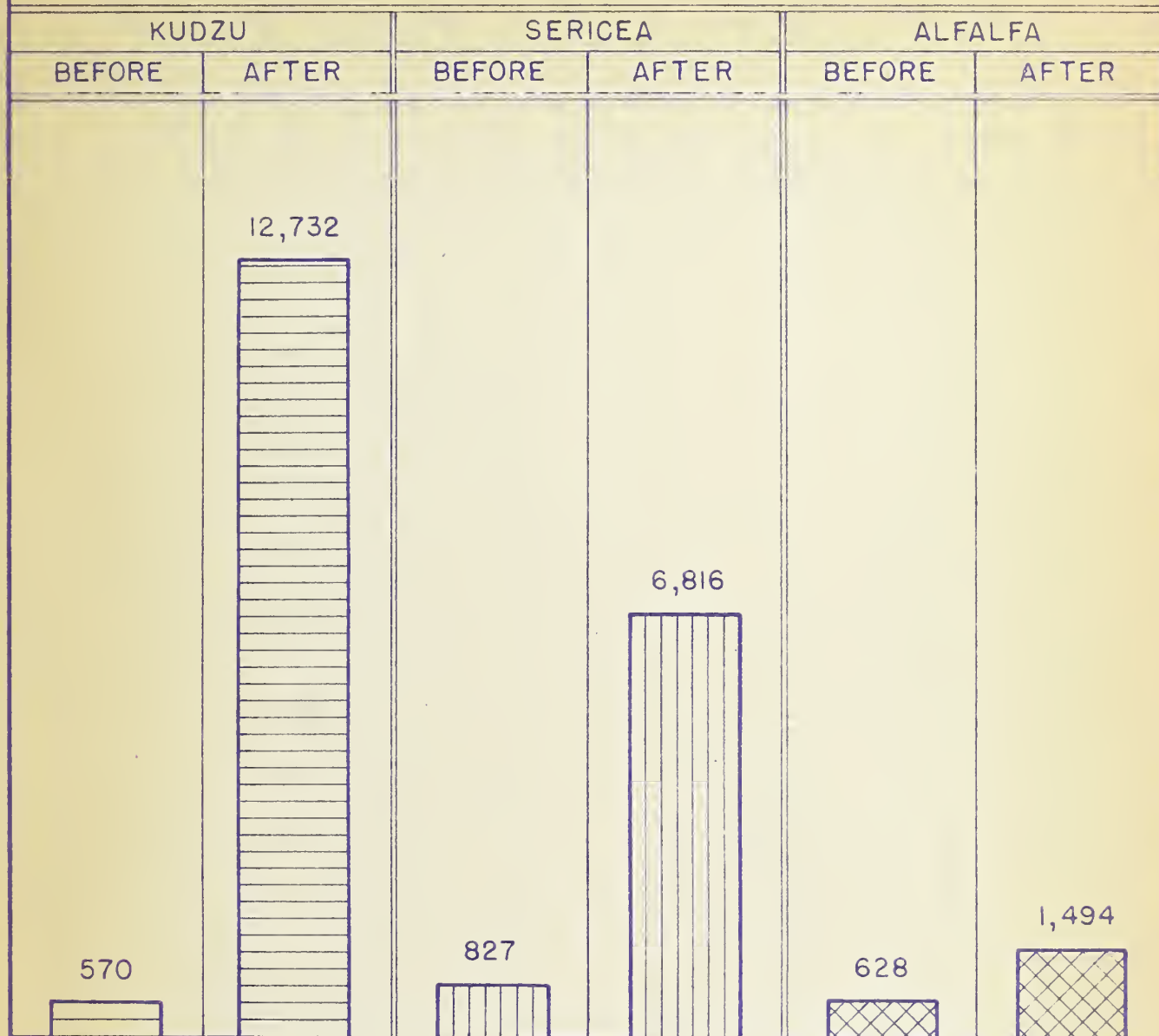


As a result of the work in soil conservation districts the beginning of the war found many farmers better prepared for the war-time job of producing more milk and meat.

Only 175 farmers of the 1,829 interviewed harvested perennial hay before conservation plans were made for their farms. Their total annual production amounted to 5,001 tons. Since then more of these farmers have begun growing perennial hay crops and the annual production has increased to 18,335 tons on 996 farms, or an increase of 267 percent. Similarly, the production of annual hay has increased from 26,507 to 47,934 tons, or 81 percent. Most of the perennial hay on these farms was grown on eroded or idle land that was not growing any crop before conservation plans were developed and did not replace annual hay.

The acreage of improved pasture has been increased from 18,194 to 57,318 acres, or an increase of 215 percent.

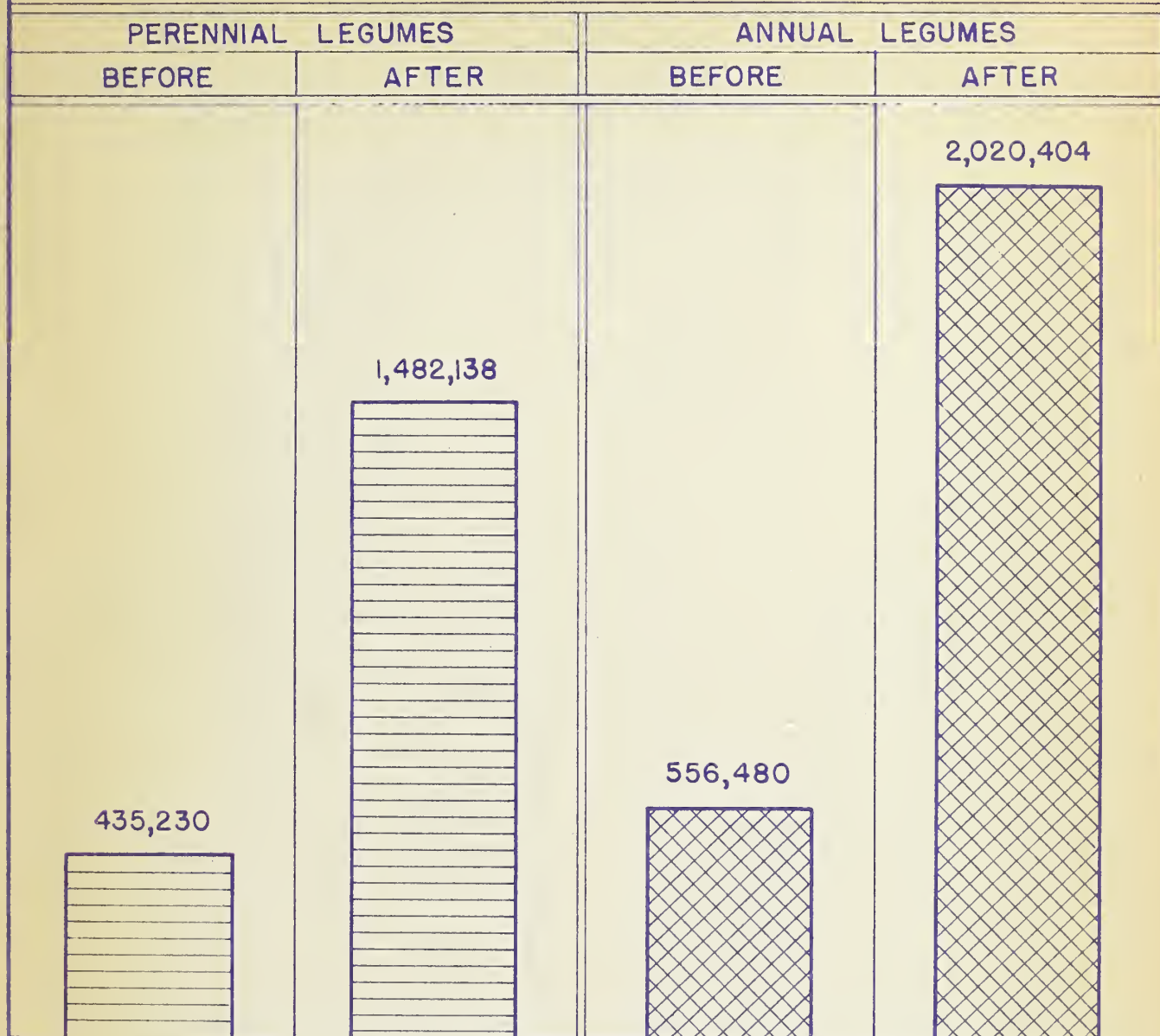
ACREAGE PERENNIALS



More hay and pasture is planned by soil conservation districts at the time a complete system of conservation farming is developed for the farm.

Of the 1,829 farmers interviewed, only 85 farmers were growing kudzu before they adopted conservation and better land use methods. The total amount of land in kudzu on these farms was 570 acres. Within this same group of 1,829 farmers, 1,314 now have a total of 12,732 acres in kudzu. The acreage of sericea lespedeza likewise has been increased from 827 acres on 76 farms to 6,816 acres on 1,022 farms, and alfalfa from 628 acres on 92 farms to 1,494 acres on 170 farms.

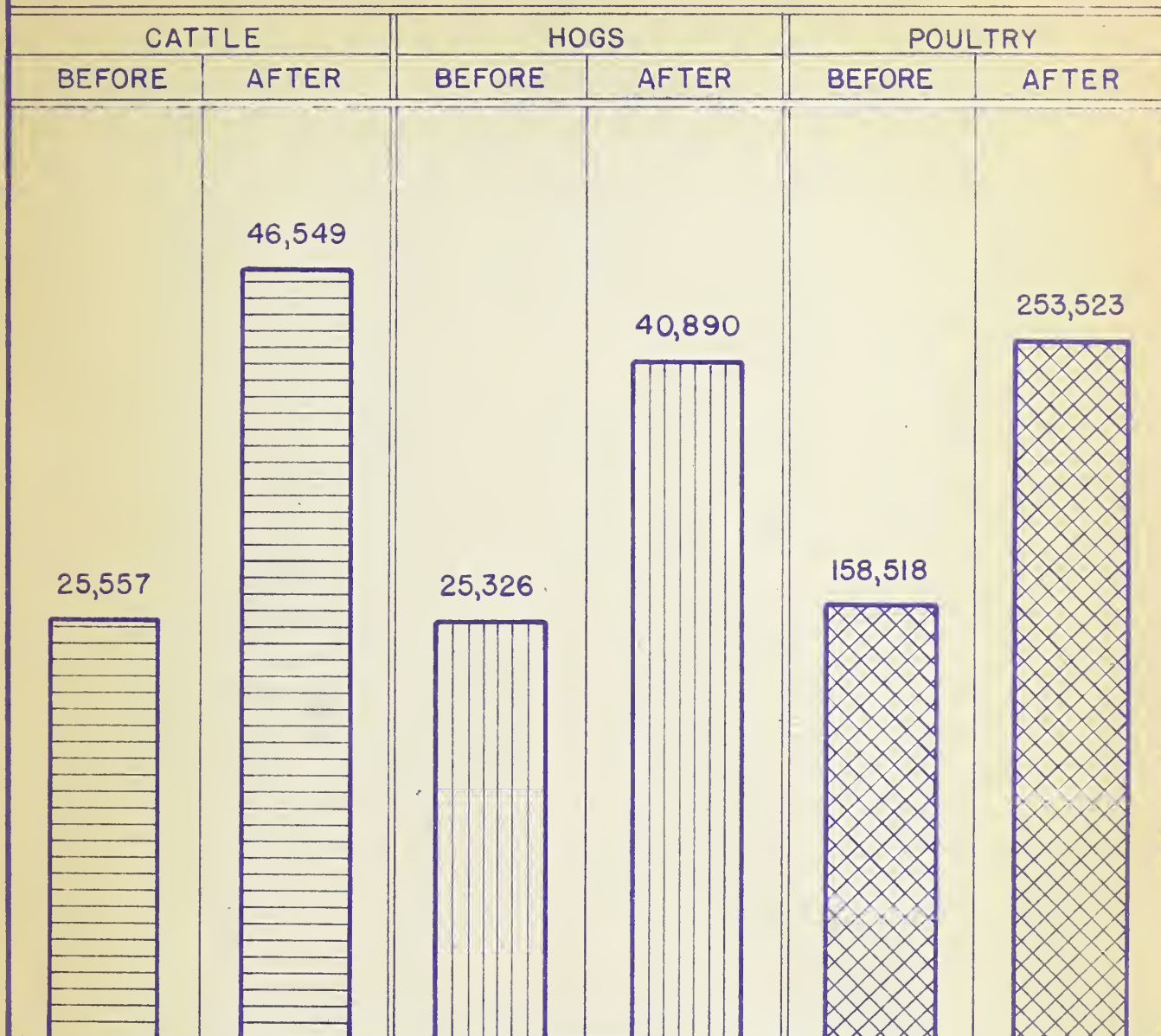
COW-DAYS GRAZING



As a source of grazing, especially when pasture grass is short or during periods of drought, perennial and annual legumes enable farmers to prevent serious slumps in milk production or a slackening in weight gains of beef cattle.

From both kinds of legumes the farmers interviewed in the survey averaged 991,710 cow-days grazing annually before they began conservation farming. After they had established these legumes or added to existing acreage as called for in their conservation plans, they reported 3,502,542 cow-days grazing annually, or 2,510,832 more days.

INCREASE IN LIVESTOCK

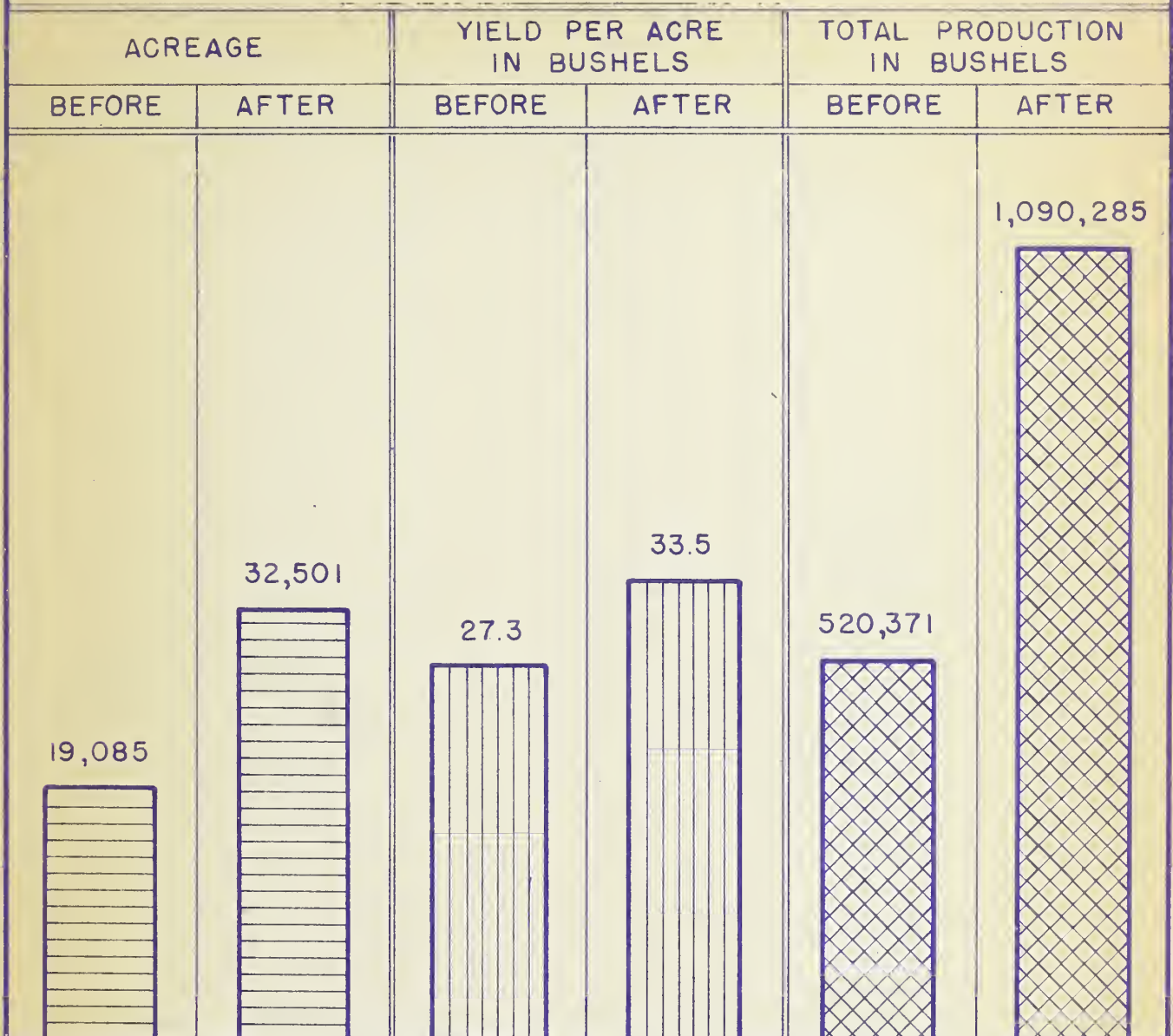


Farmers cooperating with soil conservation districts in the Southeast as shown by the survey had begun adding or increasing the number of livestock and poultry on their farms well in advance of the day the United States was forced to declare war against the axis nations.

Among the 1,829 farmers interviewed, the number having dairy herds and beef cattle increased from 1,728 to 1,800 farmers, and the number of cattle from 25,557 to 46,549, or 82 percent. The number of hogs was increased from 25,326 on 1,674 farms to 40,890 on 1,736 farms, or an increase of 62 percent.

The number of chickens being raised increased from 158,518 on 1,527 farms to 253,523 on 1,585 farms, or an increase of 60 percent.

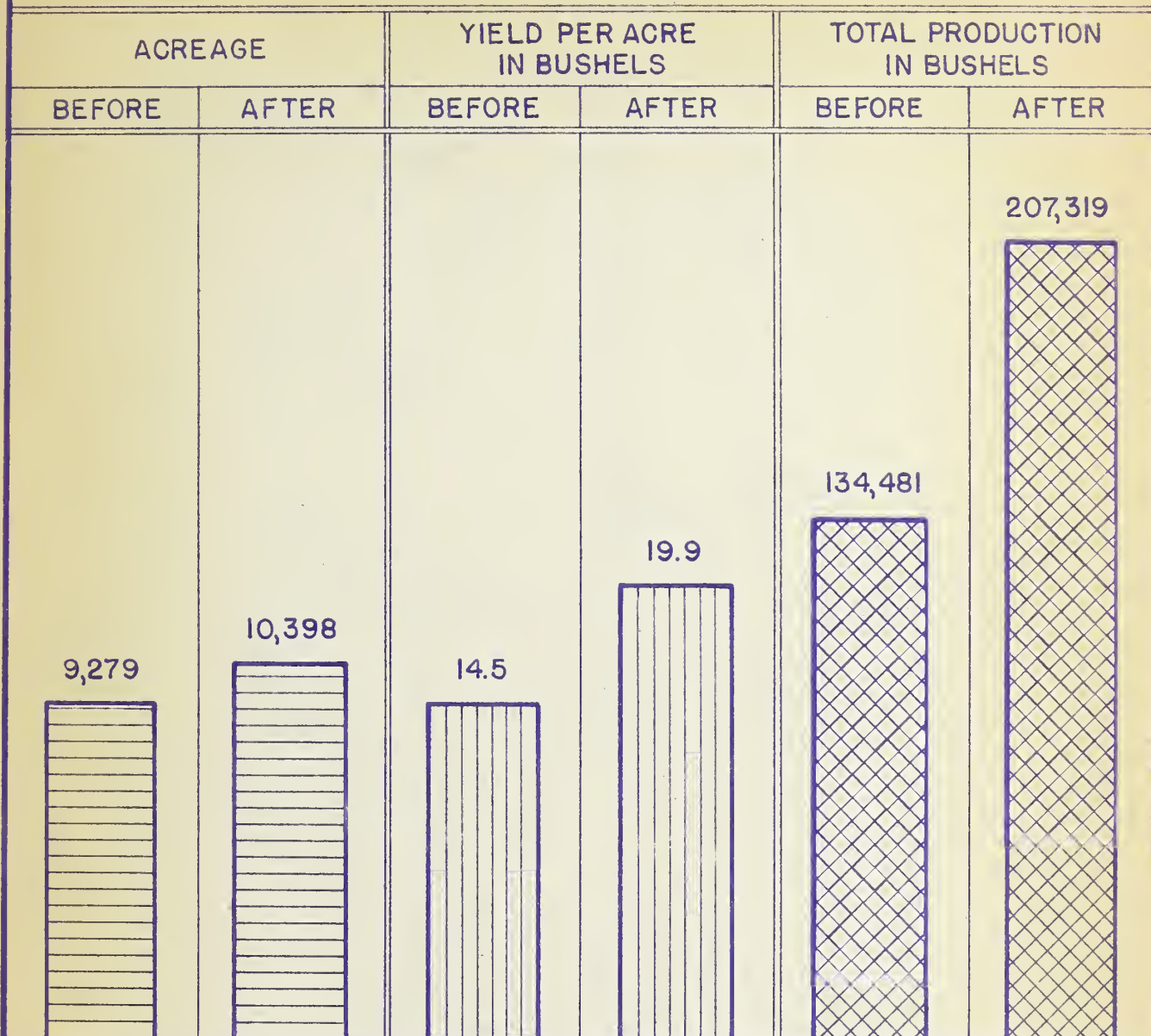
OATS



Soil conservation districts have done much to encourage greater use of oats as this crop furnishes good winter cover for the land as well as grain for feed or early spring grazing. Moreover, the crop fits in well with the establishment of soil-conserving legumes in improved crop rotations.

The oats acreage on farms covered in the survey has increased from 19,085 to 32,501 acres, and the yield per acre from 27.3 to 33.5 bushels. The 1,276 farmers growing oats produced 1,090,285 bushels, or an average of 33.5 bushels an acre. Before conservation plans were developed for the farms, 980 farmers reported growing oats and their total annual production amounted to only 520,371 bushels, or 27.3 bushels an acre.

WHEAT

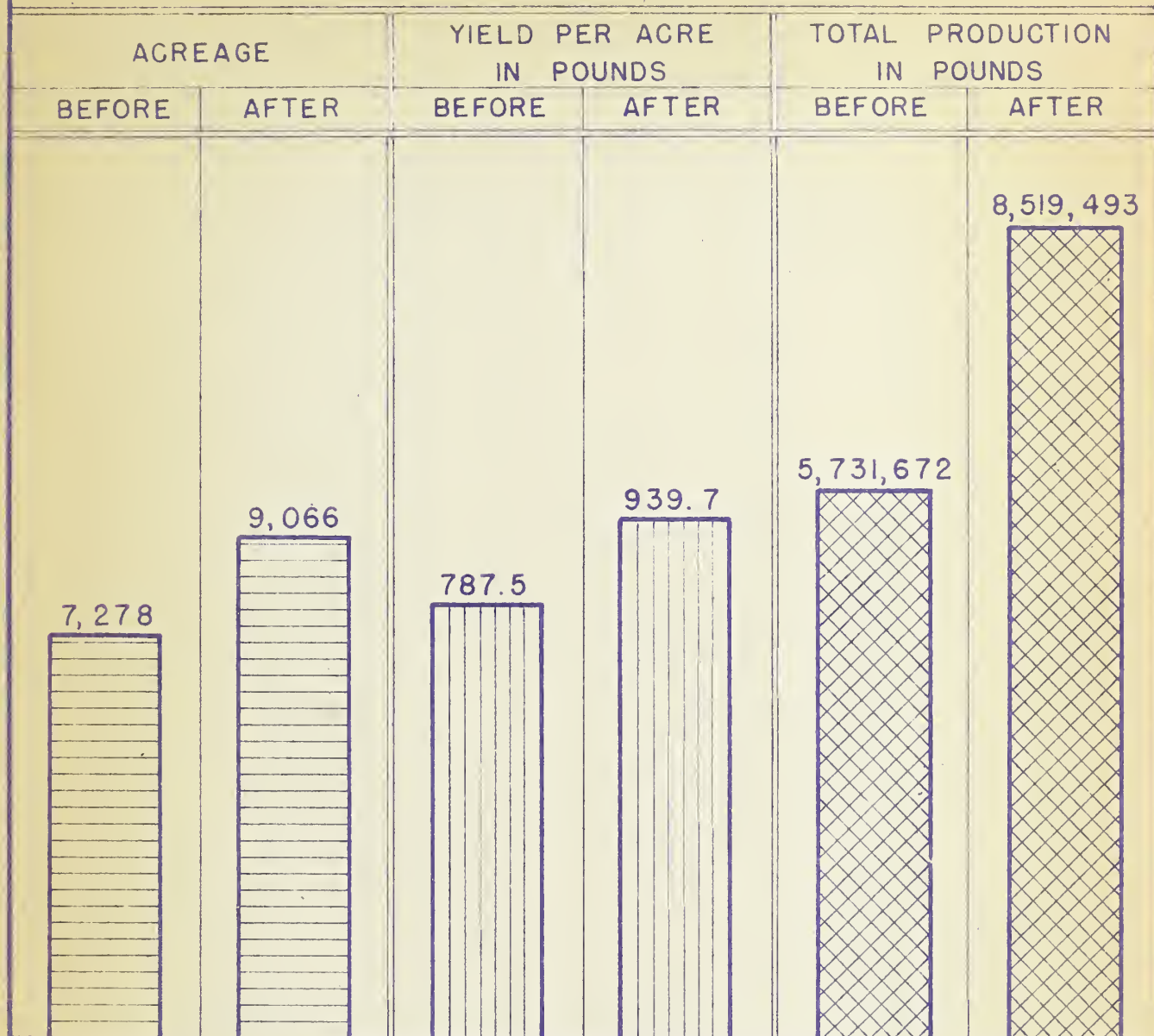


The acreage planted to wheat in the Southeast is relatively small compared to the acreage planted in some of the other regions of the Nation. Many southeastern farmers, however, have found it a good plan to grow more wheat for feeding poultry and for family use.

The wheat acreage on the farms canvassed in the survey has increased from 9,279 acres on 824 farms to 10,398 acres on 1,060 farms. The annual yield per acre after conservation farming increased from 14.5 to 19.9 bushels, and the annual total production from 134,481 to 207,319 bushels.

From the foregoing it can be seen that the district cooperators boosted their acreage 12.1 percent, which with an increase in per acre yield of 37.2 percent, enabled them to raise their total annual production by 54.2 percent.

PEANUTS

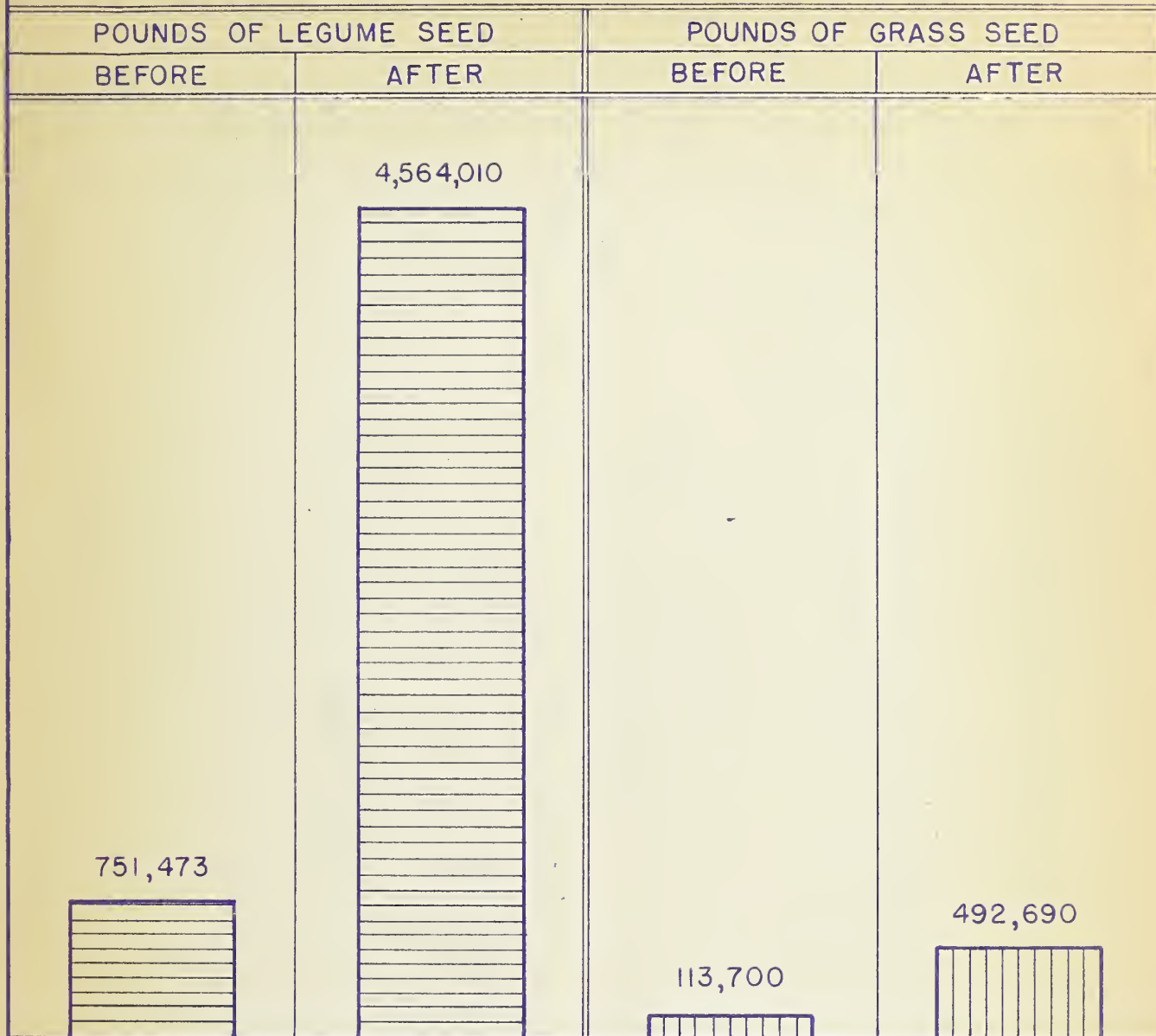


Cooperators of soil conservation districts in the peanut-growing sections in the Southeast not only have increased their peanut acreage to meet war demands, but have boosted their acre yields, resulting in a greater total production.

The yield per acre on the farms covered in the survey increased from 787.5 to 939.7 pounds, or 19.3 percent. Acreage was increased from 7,278 to 9,066 acres and total production from 5,731,672 to 8,519,493 pounds--an increase of 48.6 percent.

Soil conservation districts help peanut growers select land suitable for growing peanuts and in adopting measures that keep the land productive and protected against erosion.

LEGUME AND GRASS SEED HARVESTED



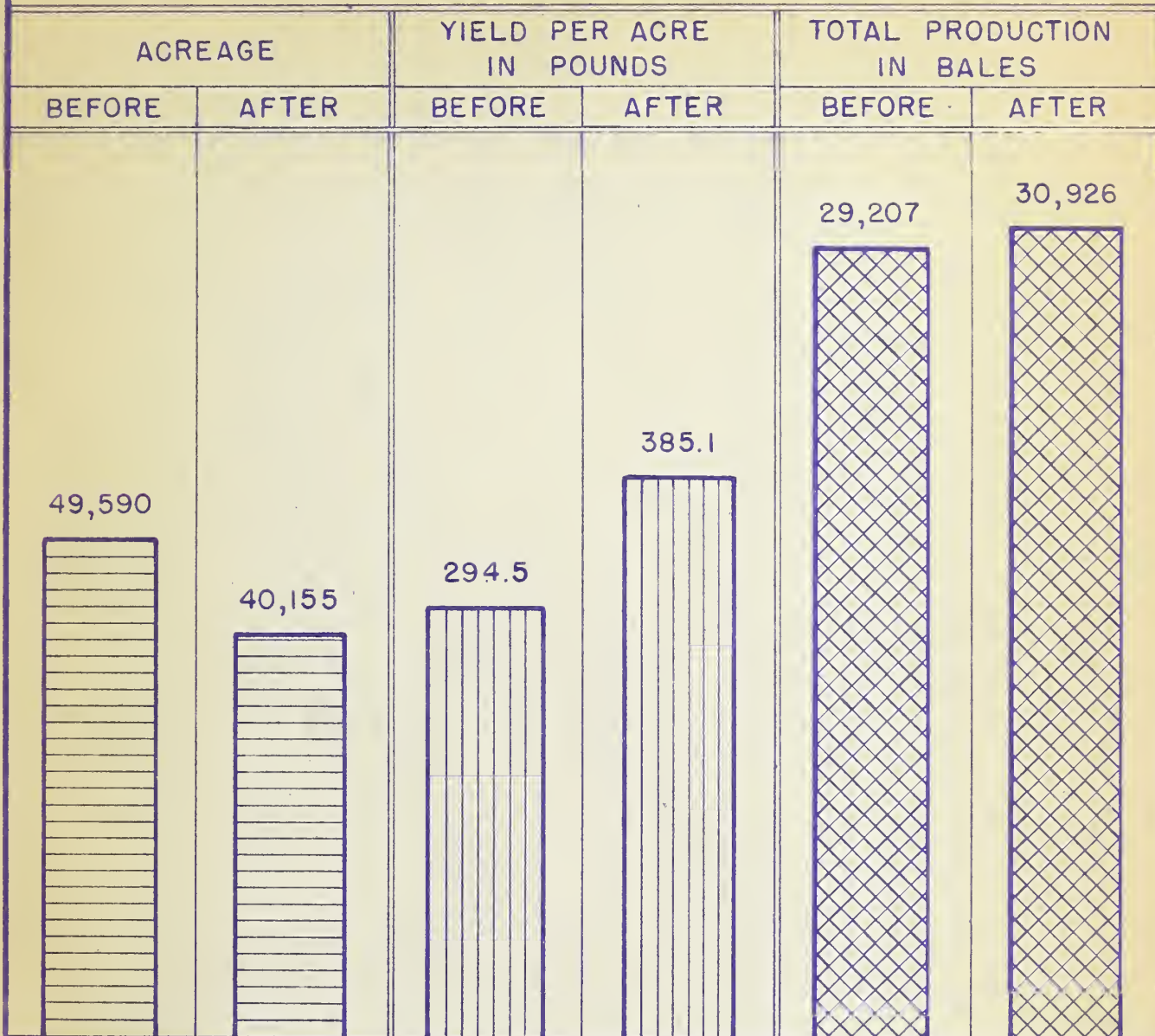
Soil conservation districts encourage farmers to grow as much legume and grass seed as they need. The farmer who follows this practice frequently produces more seed than he can use, but in most instances he is able to sell the extra seed, thus adding to his income.

Of the 1,829 farmers interviewed in this survey, only 322 were producing legume seed before they began conservation farming. Their annual production amounted to 751,473 pounds. Since then the annual production has increased to 4,564,010 pounds on 1,091 farms.

The quantity of grass seed harvested likewise has increased from 113,700 pounds annually on 24 farms before conservation farming to 492,690 pounds on 110 farms now following conservation programs.

Increased legume seed production also improves conditions for wildlife.

COTTON



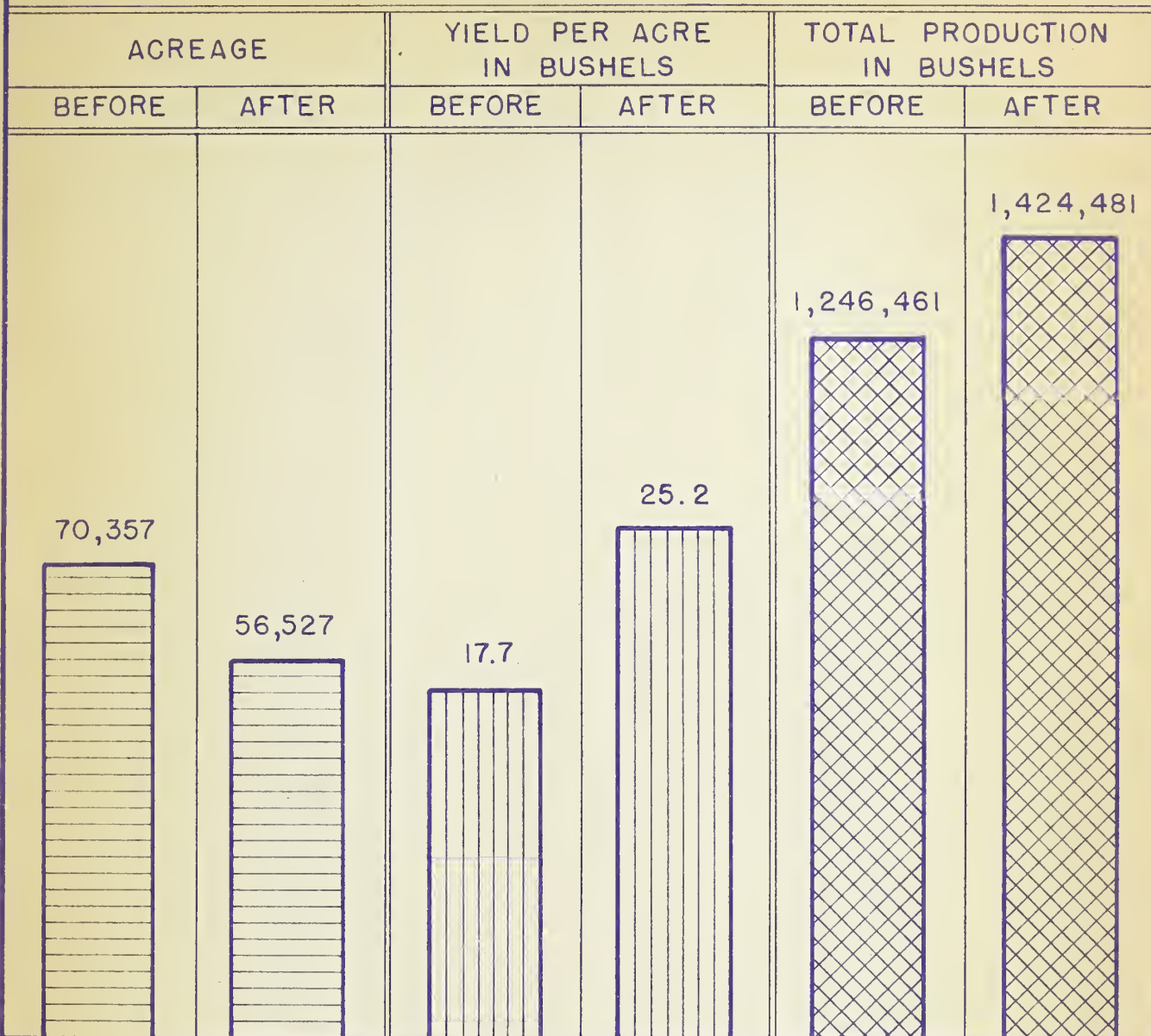
By following improved crop rotations that provide for greater use of legumes such as annual lespedeza and crotalaria, using other erosion-control practices, and planting on suitable land, farmers in the Southeast are able to grow their cotton on fewer acres and yet maintain a high production.

On the farms covered in the survey, the acreage planted to cotton has been reduced from 49,590 acres on 1,429 farms to 40,155 acres on 1,401 farms, or 19 percent fewer acres. The yield of lint cotton per acre, however, has been raised from 294.5 to 385.1 pounds, or 30.8 percent, which has resulted in producing 30,926 bales on the smaller acreage as compared with 29,207 bales on the larger acreage.

Throughout the districts, farmers who are following complete conservation plans find that the use of legumes for soil building enables them to reduce the amount of commercial nitrogen ordinarily required to produce a good crop of cotton.



CORN

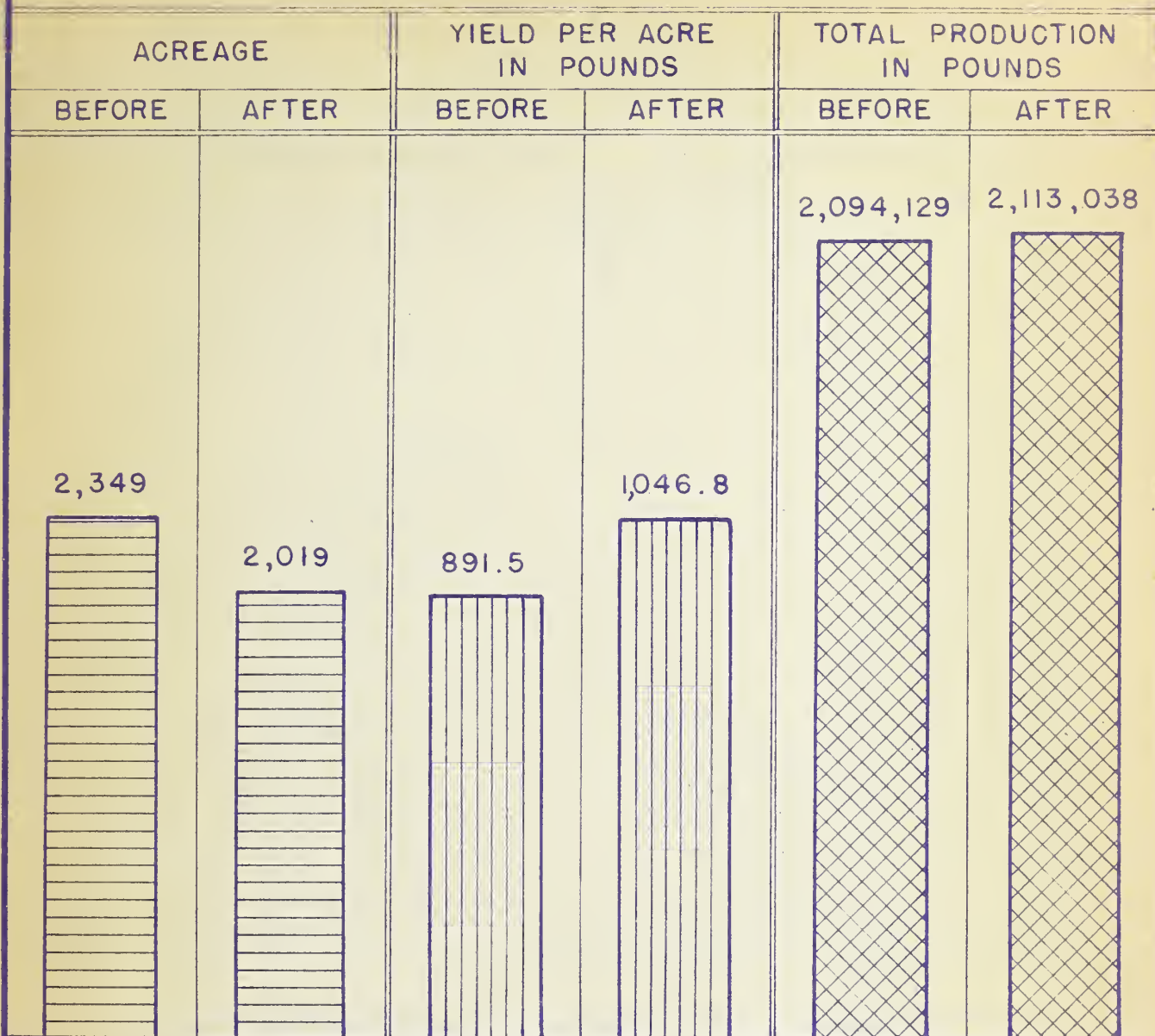


Much of the land devoted to corn in the Southeast is too poor for that crop. Through the use of improved crop rotations that include legumes farmers have been able to build up the productivity of their soil and increase yields.

The corn acreage on the farms covered in the survey has been reduced from 70,357 acres on 1,762 farms to 56,527 acres on 1,754 farms, or a reduction of 19.7 percent. Yet, the total annual production has increased from 1,246,461 to 1,424,481 bushels, or an increase of 178,020 bushels.

The increase in the yield per acre from 17.7 to 25.2 bushels, or 42.4 percent, accounts for the 14.3 percent increase in total production on 13,830 fewer acres.

TOBACCO



Among the farmers interviewed in this survey, 278 were growing tobacco before district conservation plans were developed for their farms. Their total acreage before conservation farming was 2,349 acres, yield per acre 891.5 pounds, and total production 2,094,129 pounds.

After conservation farming for at least two years in which a better system of water disposal including improved row arrangement was provided and cover crops of grass or small grain were used, 279 farmers were growing tobacco on 2,019 acres, 330 less than formerly, and their average yield per acre increased to 1,046.8 pounds, or 155 pounds more per acre. The total annual production was increased from 2,094,129 to 2,113,038 pounds.

WOODLAND PRODUCTS SOLD

FARMS REPORTING

BEFORE CONSERVATION FARMING-235

AFTER CONSERVATION FARMING-458

TOTAL VALUE WOODLAND PRODUCTS

VALUE PER FARM REPORTING

BEFORE

AFTER

BEFORE

AFTER

\$ 42,546

\$ 215,283

\$ 181.05

\$ 470.05

Better woodland management, including reforestation, proper harvesting of timber products, fire prevention, and grazing control, is resulting from assistance given farmers by soil conservation districts.

Of the 1,829 farms covered in the survey, 235 valued timber and other wood products used and sold annually before they began conservation farming at \$42,546. After cooperation was begun with the districts 458 farms valued the woodland products used and sold at \$215,283 annually. The value of woodland products sold or used averaged \$181.05 on each of the 235 farms as compared to \$470.05 per farm after conservation planning.

With a war market, farmers are selling more woodland products than ordinarily. The timber sold from farms of district cooperators was in most cases ready for harvest before conservation plans were developed, and therefore, the greater income cannot be attributed directly to conservation farming. In many instances, however, the marketing service given farmers by districts has helped them obtain better prices for their products and assistance in selective harvesting has enabled them to retain a good stand of growing timber for future use and sale.

BETTER AND MORE PROFITABLE USE OF THE LAND

One of the outstanding contributions of conservation farming is the building of a permanent and balanced agriculture.

By following well-rounded conservation programs, farmers grow cultivated crops on the land that is best suited to produce these crops without soil wastage. Frequently, this means less land available for such erosion-inducing crops as cotton and corn, but in most instances the total production of these crops is maintained or increased through larger acre yields brought about by conservation and improved rotations in which legumes were included.

As shown by the survey, the cotton acreage on approximately 1,400 farms was reduced from 49,590 to 40,155 acres. But, through better yields per acre the farmers produced 30,926 bales on 40,155 acres as compared with 29,207 bales on 49,590 acres.

The same is true in the case of corn. The corn acreage was reduced from 70,357 to 56,527 as much of the land was too poor to produce satisfactory yields of corn. The total annual yield of 1,424,481 bushels of corn on the reduced acreage was 178,020 bushels greater than the total yield of 1,246,461 bushels on the larger acreage. This was due to the per acre yield having been increased from 17.7 to 25.2 bushels.

With less land in cotton and corn and yet producing larger total yields, farmers are able to put more land in pasture and feed crops. This shift in land use as shown by the survey has resulted in substantial

increases in the acreage being devoted to pasture, hay, and small grain. As farmers produced more feed through conservation farming, they increased their livestock. The annual cost of livestock feed, principally concentrates, on approximately 800 farms was \$298.97 per farm after conservation farming as compared with \$275.66 before conservation farming. The increase of \$23.31 per farm was due largely to the larger numbers of livestock on these farms.

The fact that the farms covered in the survey are raising some 20,000 more dairy and beef cattle, 15,000 more hogs, and 95,000 more chickens than formerly indicates to a fair degree at least, the success soil conservation districts have attained in encouraging farmers to diversify their farming activities. In this connection it might be well to note that practically all of these farms already had increased their livestock and poultry production before they were asked to do so in the interest of the nation's defense and later as a wartime measure. In short, when the nation was forced to enter the war the farmers following well-rounded conservation programs were better prepared than many other farmers.

Of particular significance to agriculture in the Southeast is the manner in which conservation farming is bringing idle or abandoned farmland back into productive use. On the farms covered in the survey, a total of 25,169 acres of idle land is being put into pasture, hay, and woodland. In some cases where idle land is suitable it is being used for cultivated crops. Throughout all the soil conservation districts in the Southeast special emphasis is being placed on getting idle

farmland back into safe and profitable production so that the land will contribute permanently to the income of the farm instead of being a liability.

Numerous other benefits as revealed by the survey could be cited, but from the foregoing it is apparent that conservation farming not only helps farmers protect their land against erosion but also enables them to increase yields and greatly diversify their farming activities.

As already pointed out there are 56,756 farmers actively co-operating with soil conservation districts in the Southeast, and each year the number of farmers applying to districts for conservation plans steadily increases. They have seen on the farms of district cooperators that conservation farming pays. Moreover, with more districts being organized, more farmers will be able to work together effectively in conserving and improving their soil resources.

One hundred and sixty-six years ago our
forefathers fought to win this land. To-
day we are fighting to protect the land
they won for us, and we're looking to the
land we fight for to sustain us in our
fight. - - - - - H. H. Bennett.

